Abstract

In one embodiment of a computer implemented method of determining placement of components in a rack, a rack height, a set of components to be placed in the rack, and a height are provided for each of the components. A placement of the components in the rack is determined according to constraints. The placement of the components is then evaluated according to an objective. The constraints may comprise a rack height constraint, a single placement constraint, and a non-overlapping constraint. The rack height constraint ensures that placement of a particular component does not result in a top height of the particular component exceeding the rack height. The single placement constraint ensures that each component is placed once and only once. The non-overlapping constraint ensures that each slot in the rack is occupied by no more than a single component. The method may further comprise providing a weight and a weight distribution for each component in the set of components. In this embodiment, the objective comprises seeking a minimum height for a center of gravity of the components.